

1. A distributed industrial process control system comprising:
a central control including a computer system, user input/output (I/O) for providing an interface between the computer system and a user, and a wireless communication link associated with the computer system for transmitting and receiving process control and secondary information; and
a distributed network of industrial process control field devices, at least one of the field devices having an associated wireless communication link for transmitting and receiving process control and secondary information to provide wireless communication between the computer system of the central control and the field device.
2. The system of claim 1 and further comprising:
a controller for controlling field devices of the distributed network based upon commands from the computer system and for providing data to the computer system based upon signals received from field devices of the distributed network.
3. The system of claim 1 wherein the field devices are powered from the distributed network.
4. The system of claim 3 wherein the wireless communication link associated with the field device is powered from the distributed network.
5. The system of claim 1 wherein the distributed network includes a field module in communication with a plurality of field devices and a wireless communication link associated with the field module to communicate with the plurality of field devices.

6. The system of claim 1 wherein the distributed network includes a network bridge and a wireless communication link associated with the network bridge to communicate with field devices connected to control networks serviced by the network bridge.

7. The system of claim 1 wherein the secondary information includes diagnostic data.

8. The system of claim 1 wherein the central control is capable of communicating with the field device through the wireless communication links for monitoring process variables.

9. The system of claim 1 wherein the central control is capable of communicating with the field device through the wireless communication links for performing control actions.

10. The system of claim 1 wherein the central control is capable of communicating with the field device through the wireless communication links for performing diagnostics.

11. The system of claim 1 wherein the central control is capable of communicating with the field for receiving through the wireless communication links status information.

12. The system of claim 1 wherein the central control is capable of communicating with the field device through the wireless communication links for accessing secondary functions of the field devices.

13. The system of claim 1 wherein the central control is capable of communicating with the field device through the wireless communication links for performing shut-down procedures.

14. The system of claim 1 wherein the central control is capable of communicating with the field device through the wireless communication links for observing critical temperatures and pressures.

15. The system of claim 1 wherein the central control is capable of communicating with the field device through the wireless communication links for adjusting device operating characteristics.

16. A distributed industrial process control system comprising:
a plurality of industrial process control field devices;
a plurality of wireless communication links, each link associated with at least one of the field devices; and
a central control capable of communicating with each of the wireless communication links to transmit data to and receive data from selected field devices.

17. The system of claim 16 and further comprising:
a network connecting the plurality of field devices to provide energization and signal transmission.

18. The system of claim 17 wherein the plurality of wireless communication links are powered from the network.

19. The system of claim 17 and further comprising:

a field module connected to the network and in communication with at least two of the field devices and one of the wireless communication links.

20. The system of claim 17 and further comprising:
a network bridge connected in the network and connected to one of the wireless communication links.
21. The system of claim 17 wherein the data includes process control information.
22. The system of claim 17 wherein the data includes diagnostic data.
23. The system of claim 16 wherein the central control is capable of communicating with the field devices through the wireless communication links for monitoring process variables.
24. The system of claim 16 wherein the central control is capable of communicating with the field devices through the wireless communication links for performing control actions.
25. The system of claim 16 wherein the central control is capable of communicating with the field devices through the wireless communication links for performing diagnostics.
26. The system of claim 16 wherein the central control is capable of communicating with the field devices through the wireless communication links for providing status information.

27. The system of claim 16 wherein the central control is capable of communicating with the field devices through the wireless communication links for accessing secondary functions of the field devices.

28. The system of claim 16 wherein the central control is capable of communicating with the field devices through the wireless communication links for performing shut-down procedures.

29. The system of claim 16 wherein the central control is capable of communicating with the field devices through the wireless communication links for observing critical temperatures and pressures.

30. The system of claim 16 wherein the central control is capable of communicating with the field devices through the wireless communication links for adjusting device operating characteristics.

31. A distributed industrial process control system comprising:
a plurality of industrial process control field devices;
a plurality of wireless communication links associated with the field devices;
a network for providing power to the field devices and the wireless communication links; and
a central control capable of communicating with the field devices through the wireless communication links.

32. The system of claim 31 wherein the network is connected to the field devices and the central control to provide a signal transmission path therebetween.

33. The system of claim 31 wherein the wireless communication links communicate process control information.

34. The system of claim 33 wherein the wireless communication links communicate secondary information.

35. The system of claim 31 wherein the field devices are capable of performing diagnostic functions and wherein the wireless communication links communicate diagnostic data.

36. The system of claim 31 wherein the central control is capable of communicating with the field devices through the wireless communication links for monitoring process variables.

37. The system of claim 31 wherein the central control is capable of communicating with the field devices through the wireless communication links for performing control actions.

38. The system of claim 31 wherein the central control is capable of communicating with the field devices through the wireless communication links for performing diagnostics.

39. The system of claim 31 wherein the central control is capable of communicating with the field devices through the wireless communication links for providing status information.

40. The system of claim 31 wherein the central control is capable of communicating with the field devices through the wireless communication links for accessing secondary functions of the field devices.

41. The system of claim 31 wherein the central control is capable of communicating with the field devices through the wireless communication links for performing shut-down procedures.

42. The system of claim 31 wherein the central control is capable of communicating with the field devices through the wireless communication links for observing critical temperatures and pressures.

43. The system of claim 31 wherein the central control is capable of communicating with the field devices through the wireless communication links for adjusting device operating characteristics.

44. The system of claim 31 wherein the central control is capable of communicating with the field devices through the wireless communication links for adjusting device operating characteristics.